

Title (en)

A VEGETAL CONCRETE MASONRY UNIT AND METHOD AND SYSTEM FOR MANUFACTURE THEREOF

Title (de)

MAUERWERK AUS PFLANZLICHEM BETON SOWIE VERFAHREN UND SYSTEM ZU SEINER HERSTELLUNG

Title (fr)

UNITÉ DE MAÇONNERIE EN BÉTON VÉGÉTAL, ET PROCÉDÉ ET SYSTÈME DE FABRICATION ASSOCIÉS

Publication

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Application

EP 21744222 A 20210121

Priority

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Abstract (en)

[origin: WO2021149076A1] The present invention relates to an economically sustainable vegetal masonry unit and the method and system (10) for manufacturing of the same wherein the vegetal masonry unit comprises of crop residues, binder and PFA pulverized fuel ash along with water, wherein the system comprising a lime silo (12) containing hydrated lime which is mixed with ground granulated blast furnace slag (14) and a activator powder (16) in a ribbon blender (18) to form a binder which is stored in a binder silo (20), a raw crop residue from the storage (22) is mixed with water (24) and sodium hydroxide (26) in the stainless steel cooker (28), the mixture obtained from the stainless steel cooker (28) is fed to the wet washing (30) and subsequently to the cooked crop residue hopper (32). The cooked crop residues from hopper (32), binder from the binder silo (20) and PFA pulverized fuel ash hopper (36) are mixed with water (38) in a pan mixer (34), wherein, the wet mix of the pan mixer (34) are casted into molds using hydraulic block machine (40) with a high compacting pressure, and then transported to the stock yard.

IPC 8 full level

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CPC (source: EP GB US)

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Citation (search report)

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- [I] CN 109437708 A 20190308 - UNIV HEBEI TECHNOLOGY
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- [Y] "Process Plant Equipment: Operation, Control and Reliability", 31 October 2012, JOHN WILEY AND SONS, article TEKCHANDANEY JAYESH RAMESH: "Mixers", pages: 245 - 296, XP093138917
- [A] EMDADI ZEYNAB ET AL: "Development of Green Geopolymer Using Agricultural and Industrial Waste Materials with High Water Absorbency", APPLIED SCIENCES, vol. 7, no. 5, 16 May 2017 (2017-05-16), pages 514, XP093137387, ISSN: 2076-3417, DOI: 10.3390/app7050514
- See also references of WO 2021149076A1

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